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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,546	01/18/2002	William Ho Chang	FLEX 2405	7165

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SMITH-HILL AND BEDELL, P.C.
16100 NW CORNELL ROAD, SUITE 220
BEAVERTON, OR 97006

EXAMINER	
HUNTSINGER, PETER K	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/054,546	CHANG ET AL.	
	Examiner	Art Unit	
	Peter K. Huntsinger	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-34 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-34 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 18 January 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The spacing of the lines of the specification is such as to make reading difficult. New application papers with lines 1½ or double spaced on good quality paper are required.

Claim Objections

2. The claims are objected to because the lines are crowded too closely together, making reading difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 28-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Lin et al. Publication US 2002/0076103.

Referring to claim 28, Lin et al. disclose a raster image processing method for processing content into output data acceptable for rendering by an output engine included in an output device (Print Engine 32 of Fig. 1, page 2, paragraph 34), the output data corresponding to content accessible at least partly from an information apparatus (scanner 12 of Fig. 1, page 2, paragraph 31), the method comprising: rasterizing at the information apparatus at least part of the content into an output image (page 2, paragraph 32) with at least two raster-form data layers and a selector mask layer, each raster-form data layer being associated with a segmentation type associated to an attribute related to information contained in the data content (page 3, paragraph 43); performing at least one image processing operation, at a processor distinct from the information apparatus and associated with the output device (image processing unit 20 of Fig. 1, page 2, paragraph 50), on each data layer of the output image (page 3, paragraph 41); and conforming at the processor the output image into a form acceptable for rendering by the output engine (page 1-2, paragraph 15).

Referring to claim 29, Lin et al. disclose rasterizing content that includes at least part of a text or graphics information (page 2, paragraph 45).

Referring to claim 30, Lin et al. disclose rasterizing content into raster-form layers that each include one or more attributes that differentiate it from other layers, the one or more attributes including one or more of resolution, color space, output size, bit depth, and rendering intent (page 3, paragraph 43).

Referring to claim 31, Lin et al. disclose rasterizing content into raster-form data layers each associated with segmentation information that includes an association with

one or more of a background and a foreground, and a luminance and a chrominance (page 2, paragraph 43).

Referring to claim 32, Lin et al. disclose the segmented information includes an association with one or more of text, graphics, image, video, and audio (page 2, paragraph 45).

Referring to claim 33, Lin et al. disclose performing image processing operations that include one or more of a compression, decompression, segmentation, de-segmentation, storing, retrieving, color correction, color management, scaling, an interpolation, color space conversion, encryption, digital watermarking, and halftoning (page 3, paragraph 44).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 5-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. Publication US 2002/0076103 and Jacobs US Patent 6,584,903.

Referring to claim 1, Lin et al. disclose a raster image processing method for processing content into an output data acceptable for rendering by an output engine

included in an output device (Print Engine 32 of Fig. 1, page 2, paragraph 34), the output data corresponding to data content accessible at least partly from an information apparatus (scanner 12 of Fig. 1, page 2, paragraph 31), the method comprising: rasterizing at the information apparatus at least part of the content into one or more output images (page 2, paragraph 32); generating at the information apparatus an intermediate output data for rendering of the data content at the output device, the intermediate output data including said one or more output images (pixel map, page 2, paragraph 32); transmitting the intermediate output data from the information apparatus for rendering at the output device (page 2, paragraph 31); performing at least one image processing operation, at an output controller (image processing unit 20 of Fig. 1, page 2, paragraph 50) that is distinct from the information apparatus and associated with the output device, on said one or more output images included in the intermediate output data (page 3, paragraph 41); and conforming at the output controller the intermediate output data into the output data acceptable for rendering by the output engine (page 1-2, paragraph 15). Lin et al. do not disclose expressly a rasterization parameter associated with the output device. Jacobs discloses at least one rasterization parameter associated with the output device (abstract). Lin et al. and Jacobs are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to rasterize an image based on a rasterization parameter. The motivation for doing so would have been to allow performing ideal rasterization for two different printers. Therefore, it would

have been obvious to combine Jacobs with Lin et al. to obtain the invention as specified in claim 1.

Referring to claims 2 and 8, Jacobs discloses rasterizing at least part of the content into said one or more output images with rasterization parameters that include one or more of resolution, color space, output size, and bit depth (abstract).

Referring to claims 3 and 9, Lin et al. disclose encoding said one or more images with mixed raster content encoding (page 3, paragraph 41).

Referring to claim 5, Lin et al. disclose performing at least one image processing operation, on the one or more output images that includes one or more of a color correction operation, a color matching operation, a color management operation, a scaling operation, an interpolation operation, a color space conversion, and a halftoning operation (page 3, paragraph 41).

Referring to claims 6 and 12, Lin et al. disclose conforming the intermediate output data by performing one or more of compression, decompression, segmentation, de-segmentation, storing, and retrieving (page 1-2, paragraph 15).

Referring to claim 7, Lin et al. disclose a raster image processing method for processing content into an print data acceptable for rendering by an printing engine included in an printing device (Print Engine 32 of Fig. 1, page 2, paragraph 34), the printing device including a printer controller (image processing unit 20 of Fig. 1, page 2, paragraph 50), the output data corresponding to data content accessible at least partly from an information apparatus (scanner 12 of Fig. 1, page 2, paragraph 31), the method comprising: rasterizing at the information apparatus at least part of the content into one

or more output images (page 2, paragraph 32); generating at the information apparatus an intermediate output data that includes one or more output images (pixel map, page 2, paragraph 32); transmitting at the information apparatus the intermediate output data from the information apparatus to a the printing device (page 2, paragraph 31); converting the intermediate output data into a print data acceptable to the printer controller, and raster image processing at the printer controller the print data for rendering by the printer engine. (page 1-2, paragraph 15). Lin et al. do not disclose expressly a processor associated with the printing device. It is inherent that the printer of Lin et al. includes a processor to render an image. Lin et al. do not disclose expressly a rasterization parameter associated with the output device. Jacobs discloses at least one rasterization parameter associated with the output device (abstract). Lin et al. and Jacobs are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to rasterize an image based on a rasterization parameter. The motivation for doing so would have been to allow performing ideal rasterization for two different printers. Therefore, it would have been obvious to combine Jacobs with Lin et al. to obtain the invention as specified in claim 7.

Referring to claim 11, Lin et al. disclose interpreting the intermediate output data and retrieving the one or more output images (page 1-2, paragraph 15).

Referring to claim 13, Lin et al. disclose converting the intermediate output data includes embedding the one or more output image information into the print data (page 1-2, paragraph 15).

7. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. Publication US 2002/0076103 and Jacobs US Patent 6,584,903 as applied to claim 1 above, and further in view of Cromer et al. US Patent 6,493,104.

Referring to claims 4 and 10, Lin et al. disclose transmitting the intermediate output data but do not disclose expressly utilizing wireless communication. Cromer et al. disclose utilizing wireless communication for printing data (col. 5, lines 31-35). Lin et al. and Cromer et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to transmit the intermediate output data by wireless communication. The motivation for doing so would have been to eliminate the need for a wire to physically connect the information apparatus and the controller. Therefore, it would have been obvious to combine Lin et al. and Cromer et al. to obtain the invention as specified in claims 4 and 10.

8. Claims 14-27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. Publication US 2002/0076103 and Cromer et al. US Patent 6,493,104.

Referring to claims 14 and 22, Lin et al. disclose a method and system of processing content, comprising: creating raster data by rasterizing at least part of the content (page 2, paragraph 32); creating one or more images with at least two raster-form layers for storing segmented information associated with at least part of the

content (page 3, paragraph 41); storing at least part of the raster data into the at least two raster-form layers according to the segmented information (page 2, paragraph 33); and transmitting an output data that includes said one or more images to an output device or system for rendering (page 1-2, paragraph 15). Lin et al. do not disclose expressly transmitting the output data by local short range communication. Cromer et al. disclose utilizing wireless communication for printing data (col. 5, lines 31-35). Lin et al. and Cromer et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to transmit the intermediate output data by wireless communication. The motivation for doing so would have been to eliminate the need for a wire to physically connect the information apparatus and the controller. Therefore, it would have been obvious to combine Lin et al. and Cromer et al. to obtain the invention as specified in claims 14 and 22.

Referring to claims 15 and 23, Lin et al. disclose creating raster data by rasterizing content that includes at least part of a text or graphics information (page 2, paragraph 45).

Referring to claims 16 and 24, Lin et al. disclose creating one or more images with each raster-form layer including one or more image attributes that differentiate it from other layers, the one or more attributes including one or more of resolution, color space, output size, bit depth, and compression method, digital watermark, and rendering intent (page 3, paragraph 44).

Referring to claim 17, Lin et al. disclose creating one or more images with at least two raster-form layers for storing segmented information that includes an association with one or more of a background and a foreground, and a luminance and a chrominance (page 3, paragraph 43).

Referring to claim 18, Lin et al. disclose creating one or more images with at least two raster-form layers for storing segmented information that includes an association with one or more of a text, a graphics, an image, a video, and an audio (page 3, paragraph 45).

Referring to claim 19, Lin et al. disclose creating one or more images with at least two raster-form layers, and at least one a selector layer (page 3, paragraph 43).

Referring to claims 20 and 25, Lin et al. disclose one or more operations on one or more of the raster-form layers that include one or more of compression, decompression, segmentation, de-segmentation, storing, retrieving, color correction, color management, scaling, interpolation, color space conversion, encryption, digital watermarking, and halftoning (page 1-2, paragraph 15).

Referring to claims 21 and 34, Cromer et al. disclose transmitting the output data by short-range wireless communication (abstract). Lin et al. and Cromer et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to transmit the intermediate output data by wireless communication. The motivation for doing so would have been to eliminate the need for a wire to physically connect the information

apparatus and the controller. Therefore, it would have been obvious to combine Lin et al. and Cromer et al. to obtain the invention as specified in claims 21 and 34.

Referring to claim 26, Cromer et al. disclose means for delivering the one or more images to an output device or system with short-range wireless communication (col. 5, lines 31-35).

Referring to claim 27, Lin et al. disclose the output device or system includes printing device (Print Engine 32 of Fig. 1, page 2, paragraph 34).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (571)272-7435. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PKH

David Moore

DAVID MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600